

REMARKS

Applicant respectfully requests consideration of the subject application as amended herein. This Amendment is submitted in response to the Office Action mailed on December 7, 2004. Claims 23-36, 61-98, 103 and 104 have been withdrawn. Claims 1-22, 37-60 and 99-102 are rejected. Claim 1 has been amended. No new matter has been added.

35 U.S.C. § 112, second paragraph

The Examiner rejected claims 1-22 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 has been amended to recite “an opening” instead of “a receptor” as rejected by the Examiner. Examples of an “opening” can be found throughout Applicant’s Application, for example, Figures 1-2, 8-10, and 12-14 and the associated description.

35 U.S.C. § 102(e)

Claims 1-3, 5, 6, 8, 13, 19, 20, 22, 37, 38, 40-42, 48, 53, 56 and 60 are rejected under 35 U.S.C. § 102(e) as being anticipated by Kayanakis, et al, (U.S. Patent No. 6,536,674, hereinafter “Kayanakis”).

Applicant respectfully disagrees.

Claim 1 recites an apparatus comprising: (emphasis added)

a strap including a substrate with an embedded integrated circuit, the integrated circuit having a conductive pad, the integrated circuit being embedded in an opening provided in the substrate using fluidic self-assembly;

a thin-film dielectric layer formed over a portion of the integrated circuit and a portion of the substrate; and
a conductive medium formed over the thin-film dielectric layer and attached to the conductive pad of the integrated circuit; and
a large-scale component attached to the conductive medium, the large scale component electrically coupled to the integrated circuit, and the large scale component including a second substrate

Claim 3, 5, 6, 8, 13, 19, 20, and 22 depend from claim 1. Claims 37, 38, 40-42, 48, 53, 56 and 60 are similar to claim 1 in that the large scale component including a second substrate.

As can be seen, claims 1-3, 5, 6, 8, 13, 19, 20, 22, 37, 38, 40-42, 48, 53, 56 and 60 require the integrated circuit to be embedded in a first substrate; and, the large scale component including a second substrate is coupled to the integrated circuit. The large scale component and the integrated circuit are not formed, embedded, or deposited in the same substrate.

As can be best understood from Kayanakis, antenna turns 36 are formed on an antenna support 28, which is inserted between two card bodies wherein each card body contains a cover 20. Antenna pads 38 and the antenna turns 36 are trapped in the internal layer 34 of the antenna support 28. Chip 40 is also placed on the same antenna support 28. There is thus no two different substrates, one for the integrated circuit and one for the large component, as recited in claims 1-3, 5, 6, 8, 13, 19, 20, 22, 37, 38, 40-42, 48, 53, 56 and 60.

Applicant thus respectfully submits that Kayanakis did not disclose each and every element of these claims and request withdrawal of the rejection.

35 U.S.C. § 103(a)

a. Claims 4, 39, 43 and 46 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kayanakis, in view of Golwalkar, et al. (U.S. Patent Application No. 2002/0114587, hereinafter “Golwalkar”).

Applicant respectfully disagrees. Similar to previously discussed above, claims 4, 39, 43 and 46 require the integrated circuit to be embedded in a first substrate; and, the large scale component including a second substrate is coupled to the integrated circuit. The large scale component and the integrated circuit are not formed, embedded, or deposited in the same substrate.

Even if the electrical connection can be made with solder, blue, conductive tape, or conductive epoxy, Kayanakis and Golwalkar in combination could have not make obvious claims 4, 39, 43 and 46. One reason is that in Kayanakis, the antenna turns 36 are formed on the antenna support 28, which is inserted between two card bodies wherein each card body contains the cover 20. The antenna pads 38 and the antenna turns 36 are trapped in the internal layer 34 of the antenna support 28. The chip 40 is also placed on the same antenna support 28. There are thus no TWO different substrates.

Applicant thus respectfully submits that Kayanakis and Golwalkar could not make obvious these claims and request withdrawal of the rejection.

b. Claims 7, 21, 47, 59 and 99-102 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kayanakis.

Applicant respectfully disagrees. Similar to previously discussed above, claims 7, 21, 47, 59 and 99-102 require the integrated circuit to be embedded in a first substrate;

and, the large scale component including a second substrate is coupled to the integrated circuit. The large scale component and the integrated circuit are not formed, embedded, or deposited in the same substrate.

In Kayanakis, the antenna turns 36 and the chip 40 are both trapped in the internal layer 34 of the antenna support 28. There are thus no TWO different substrates.

Applicant thus respectfully submits that Kayanakis could not make obvious these claims for the same reasons stated above. Applicant requests the withdrawal of the rejection.

c. Claims 9-12, 55 and 57 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kayanakis, in view of Grace, et al., (U.S. Patent No. 6,727,970, hereinafter “Grace”).

As stated above, in Kayanakis, the antenna turns 36 and the chip 40 are both trapped in the internal layer 34 of the antenna support 28. There are thus no TWO different substrates. Grace disclosed fabrication of some displays. One of the embodiment pertains to a driving circuit for a display formed in a substrate that is used to form a back panel of the display, for example, Figure 12 of Grace. Combining Grace and Kayanakis would have not derived to claims 9-12, 55 and 57. Applicant requests the withdrawal of the rejection.

d. Claims 14-17, 49-52 and 58 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kayanakis, in view of Tuttle, et al., (U.S. Patent No. 6,078,791, hereinafter “Tuttle”).

Applicant respectfully disagrees. Similar to previously discussed above, claims 14-17, 49-52 and 58 require the integrated circuit to be embedded in a first substrate; and, the large scale component including a second substrate is coupled to the integrated circuit. The large scale component and the integrated circuit are not formed, embedded, or deposited in the same substrate.

Even if a battery can be connected to the circuit along with an antenna, and even when Tuttle showed an RFID device, Kayanakis and Tuttle in combination could have not make obvious 14-17, 49-52 and 58. One reason is that in Kayanakis, the antenna turns 36 are formed on the antenna support 28, which is inserted between two card bodies wherein each card body contains the cover 20. The antenna pads 38 and the antenna turns 36 are trapped in the internal layer 34 of the antenna support 28. The chip 40 is also placed on the same antenna support 28. There are thus no TWO different substrates.

Applicant thus respectfully submits that Kayanakis and Tuttle could not make obvious these claims and request withdrawal of the rejection.

Claims 18 and 54 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kayanakis, in view of Tuttle, and in view of Patterson, et al., (U.S. Patent No. 5,715,594, hereinafter “Patterson”).

Applicant respectfully disagrees. Similar to previously discussed above, claims 18 and 54 require the integrated circuit to be embedded in a first substrate; and, the large scale component including a second substrate is coupled to the integrated circuit. The large scale component and the integrated circuit are not formed, embedded, or deposited in the same substrate.

Even if Tuttle showed that the circuit can contain a logic functions and Patterson showed circuits interconnected, it would have not be obvious to derive to the elements of claims 18 and 54 by combining Kayanakis, Tuttle, and Patterson together. One reason is that in Kayanakis, the antenna turns 36 are formed on the antenna support 28, which is inserted between two card bodies wherein each card body contains the cover 20. The antenna pads 38 and the antenna turns 36 are trapped in the internal layer 34 of the antenna support 28. The chip 40 is also placed on the same antenna support 28. There are thus no TWO different substrates.

Applicant thus respectfully submits that Kayanakism, Tuttle, and Patterson could not make obvious these claims and request withdrawal of the rejection.

Applicant respectfully submits that the pending claims are patentable over the above references.

Information Disclosure Statement (IDS)

Applicant respectfully submits that Applicant has satisfied 37 CFR 1.56 with the IDSs dated August 14, 2003 and January 23, 2002. Applicant submits further that the IDSs are not voluminous and do not contain documents that are clearly irrelevant or marginally pertinent to the present Application. Applicant submits that none of the art submitted can be eliminated because it is determined to be clearly irrelevant and marginally pertinent cumulative in information. As also stated in the MPEP section 2001.04, "the Office does not anticipate any significant change in the quantity of information cited to the Office. Presumably, applicants will continue to submit

information for consideration by the Office in applications rather than making and relying on their own determinations of materiality.”

Applicant respectfully request reconsideration of the IDSs.

If the Examiner finds any remaining impediment to the prompt allowance of these claims that could be clarified with a telephone conference, Applicant respectfully requests the Examiner to contact Mimi Diemmy Dao at (408) 720-8300.

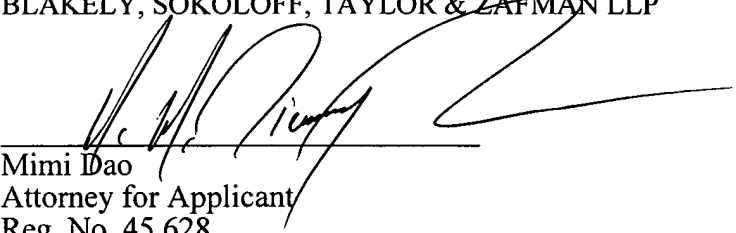
Deposit Account Authorization

Authorization is hereby given to charge our Deposit Account No. 02-2666 for any charges that may be due.

Respectfully submitted,

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